

REMARKS

Claims 1-56 are pending in the application, of which Claims 1, 7, 12, 13, 19, 20, 24, 32, 40-44 and 51 are independent. In the Office Action dated December 4, 2003, all claims were rejected under 35 U.S.C. § 103(a) based on US. Patent No. 6,192,401 to Modiri, U.S. Patent No. 6,279,032 to Short and/or U.S. Patent No. 5,915,095 to Miskowiec. The rejections are traversed.

Rejections under 35 U.S.C. § 103(a)

In order to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), three criteria must be met. There must be: (1) some suggestion or motivation to modify the reference or to combine reference teachings, (2) a reasonable expectation of success, and (3) a teaching or suggestion of all the limitations of the claim. *See* M.P.E.P. § 2143. For the reasons discussed below, it is respectfully submitted that the Examiner has not established a *prima facie* case of obviousness for any of the present claims, and that therefore, the present claims are allowable.

The claimed invention generally relates to resolving a partitioned network cluster. A user application executing on a member node of the partitioned network cluster is queried for the value of the node upon which it is executing. This value is the so-called figure of merit, which indicates the value of the member node to continue operating in the cluster. The user application determines the value and it is returned from the user application to a management program.

The Examiner cited to Short to show the claimed concept of querying a user application.¹ The Examiner correctly notes that Short discusses an approach for determining which system (node) should take ownership of groups (quorum resources) from another node. The Examiner also correctly notes that Short uses application feedback when determining which node will be responsible for the group. However, the notion of application feedback, briefly discussed in passing at col. 9, ll. 7-12 of Short, does not relate to the claimed *querying a user application for the value of its node to continue operating in a cluster*.

¹ See Office Action, pg. 3.

Short mentions the phrase “application feedback” in the context of shifting control of group resources from a failed node to another node. Short discusses that a quorum of nodes decides which of the nodes will receive the group resources from the failed node. The quorum basis its decision on, among another things, “application feedback.” This use of application feedback does not relate to the claimed *querying a user application for its determination of the value of its node to continue operating in the cluster*. Conversely, Short’s application feedback is used to determine which node will have control over quorum resources, and the application feedback does not indicate the claimed value of the node to *continue operating* in the cluster.

Moreover, Short’s discussion of “application feedback” does not relate to the claimed *user application that determines the value of its node to continue operating*. In particular, Short does not suggest that a user application should be modified so that it has the ability to determine the value of its node to continue operating in the cluster.

Modiri relates to a technique for determining membership in a cluster. Modiri assigns weighted values to the nodes, while favoring nodes that have the most processing power. Modiri determines a cluster configuration based on the weighted values. As noted by the Examiner, Modiri does not discuss the claimed *user application* that determines the value of *its node* to *continue operating*.

It is respectfully submitted that the Examiner has not satisfied the *prima facie* burden of showing that “all claim limitations are taught or suggested in the prior art” since the Office Action does not address the claimed:

- user application that determines the value of its node to continue operating in the cluster, as required by Claims 1, 7, 12, 13, 19, 20, 24, 32, 40-44 and 51, respectfully. See M.P.E.P. § 2143.03.

The Examiner cites col. 6, ll. 52-65 of Short as providing motivation to apply the teachings of Short to Modiri. Specifically, the Examiner states that it would have been obvious to apply Short's "application feedback" to Modiri because this allows the application to provide state information to the failover manager, which makes decisions about groups. Although the Examiner correctly notes that this passage in Short discusses that a failover manager uses "state information," the state information used is not directed to *user applications*. Short's state information relates to the *cluster system state*. Short teaches that "systems in the cluster may be in one of three distinct states: offline, online or paused."² For example, Short discusses that online and paused states are treated as equivalent states by the cluster software, while a system that is in the paused state cannot take ownership of groups.³ Short's use of cluster system state information is, therefore, not directed to the claimed *user application that determines the value of its node to continue operation in the cluster*. Thus, there is nothing in the cited passage of Short that would suggest or motivate one skilled in the art to enable a user application to *determine* the value of its node to continuing operating in a network cluster.

Regarding the Miskowiec reference, it relates to balancing processing requests and is nonanalogous art. Miskowiec is not directed to resolving *partitioned network clusters*. As such, the rejections based on Miskowiec should be withdrawn.

Addressing independent Claims 19, 20, 42 and 43, and dependent Claims 3, 10, 15, 26, 35, 47 and 54, these claims require that the application determine its node's value by assessing merit criteria. This merit criteria includes determining the number of users executing the application from the member node. None of the cited references discuss that an application should be modified so that it can determine the number of users executing it from the node and use this information when determining the value of its node. Thus, this limitation is not discussed in the prior art references.

² See Short at col. 7, ll. 52-55.

³ See Short at col. 7, ll. 66 - col. 8, ll. 4.

Addressing independent Claims 19, 20, 42 and 43, and dependent Claims 4, 11, 16, 27, 36, 48 and 55, these claims require that the application assess merit criteria, which includes determining an execution priority of the application programs. None of the cited references discuss that an application should be modified so that it can determine its execution priority and use this information when determining the value of its node to continue operating. Thus, this limitation is not discussed in the prior art references.

Accordingly, the teachings of the cited references, considered individually and in combination, fail to teach or suggest limitations of the present claims. As such, it is respectfully submitted that the Examiner's § 103(a) rejections based on Short, Modiri and Miskowiec are overcome, and that the present claims are allowable. Reconsideration of the § 103(a) rejections is respectfully requested.

Amendments to the Claims

Claims 1, 12, 13, 19, 40, 44 and 51 are amended by the present amendment to claim the invention more distinctly. In particular, the amendments place the claims in a better form by ensuring that they are consistent with other independent Claims 7, 20, 24, 32, 42 and 43. The amendments are unrelated to patentability of the claims or the outstanding rejections. Acceptance is respectfully requested.

Information Disclosure Statement

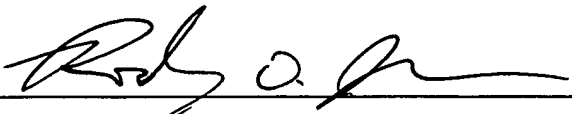
A Supplemental Information Disclosure Statement (SIDS) is being filed concurrently herewith. Entry of the SIDS is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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